

WHAT IS CLAIMED IS:

1. A method to create an image to deploy to client computers that  
2. communicate over a network, comprising:
  3. installing a program with a base computer, having a local storage, wherein the  
4. base computer is adapted to access to a shared folder accessible to the client  
5. computers over a network, wherein installing the program adds files for the program  
6. to the shared folder and modifies the local device used by the base computer, and  
7. wherein installing the program enables the base computer to run the program by  
8. accessing the program files in the shared folder;
  9. creating an image of the local device of the base computer including the  
10. installed program; and
  11. providing the image to the client computers to apply to local devices of the  
12. client computers, wherein applying the image to the local devices of the client  
13. computers enables the client computers to access the program files in the shared  
14. folder to run the program.
1. 2. The method of claim 1, wherein modifying the local device comprises  
2. modifying configuration settings for the base computer stored in the local device and  
3. adding files to the local device.
1. 3. The method of claim 1, wherein the program comprises a first program,  
2. further comprising:
  3. installing a second program on the base computer to the shared folder, wherein  
4. installing the second program adds files for the second program to the shared folder  
5. and modifies memory of the base computer, and wherein installing the second  
6. program enables the base computer to run the second program by accessing the  
7. program files in the shared folder;
  8. determining writes to the base computer memory during installation of the  
9. second program on the base computer; and
  10. providing the determined writes to the client computers to apply to the client  
11. computers, wherein the writes applied to the base computer memory during the  
12. installation of the second program are applied to the client computers, and wherein  
13. applying the writes to the client computers enables the client computers to access the  
14. second program files in the shared folder to run the second program..

1           4.     The method of claim 1, further comprising:  
2            setting the shared folder to read-only after installing the program to the shared  
3     folder.

1           5.     The method 1, wherein the image includes a driver that when loaded  
2     into the client computers causes the client computers to perform:  
3            intercepting a write request to a requested shared file in the shared folder;  
4            generate a mapping of the shared file to a local copy of the shared file in a  
5     local device; and  
6            applying the write to the local copy of the shared file.

1           6.     The method of claim 1, wherein the image includes a driver that when  
2     loaded into the client computers causes the client computers to perform:  
3            intercepting a read request to a requested shared file in the shared folder;  
4            determining whether there is a mapping of the requested shared file to a local  
5     copy of the requested shared file;  
6            accessing data for the read request from the local copy of the requested shared  
7     file in response to determining that there is the mapping of the requested shared file to  
8     the local copy; and  
9            accessing data for the read request from the requested shared file in the shared  
10    folder over the network in response to determining that there is no mapping of the  
11    requested shared file to the local copy.

1           7.     A method for accessing shared files in a shared folder over a network,  
2     comprising:  
3            enabling access to the shared folder accessible over the network;  
4            intercepting a write directed to one of the shared files in the shared folder;  
5            generating a mapping of the shared file to a local copy of the shared file in a  
6     local device; and  
7            applying the write to the local copy of the shared file.

1           8.     The method of claim 7, wherein the write to the local copy in the local  
2     device includes only a portion of the shared file, wherein the shared file and the local

3 copy of the shared file comprises of a plurality of segments, and wherein applying the  
4 write comprises:

5 applying the write to update at least one of the segments of the local copy  
6 shared.

1 9. The method of claim 7, further comprising:

2 receiving a read request to a requested shared file in the shared folder;  
3 determining whether there is a mapping of the requested shared file to a local  
4 copy of the requested shared file;

5 accessing data for the read request from the local copy of the requested shared  
6 file in response to determining that there is the mapping of the requested shared file to  
7 the local copy; and

8 accessing data for the read request from the requested shared file in the shared  
9 folder over the network in response to determining that there is no mapping of the  
10 requested shared file to the local copy.

1 10. The method of claim 9, further comprising:

2 generating a mapping of the requested shared file to a local copy of the  
3 requested shared file in the local device in response to determining that there is no  
4 mapping of the requested shared file to the local copy; and

5 copying the accessed data from the requested shared file to the local copy of  
6 the shared file in the local storage.

1 11. The method of claim 10, wherein the accessed data comprises one of a  
2 plurality of segments of the requested shared file, and wherein copying the accessed  
3 data to the local copy of the requested shared file comprises copying the accessed  
4 segment to the local copy of the shared file in the local device.

1 12. The method of claim 11, wherein the read request is for requested data  
2 in one of the segments of the requested shared file, further comprising:  
3 determining whether the local copy of the requested shared file includes the  
4 segment having the requested data in response to determining that there is the  
5 mapping of the requested shared file to the local copy;

6           accessing data from the segment including the requested data in the requested  
7   shared file in the shared folder over the network;  
8           returning the requested data from the accessed segment; and  
9           storing the accessed segment in the local copy of the requested shared file.

1           13.    The method of claim 12, wherein storing the accessed segment in the  
2 local copy further comprises:

3           determining whether the local copy includes data for the accessed segment;  
4           applying the data in the local copy to the accessed segment to form a modified  
5 segment in response to determining that the local copy includes data for the accessed  
6 segment;  
7           storing the modified segment in the local copy in response to forming the  
8 modified segment; and  
9           storing the accessed segment in the local copy in response to determining that  
10 the local copy does not include data for the accessed segment.

1           14.    A system for creating an image to deploy to client computers that  
2 communicate over a network, comprising:  
3           a base computer, having a local storage and adapted to access a shared folder  
4 over a network, wherein a plurality of client computers are additionally adapted to  
5 access the shared folder over the network;  
6           an installation program adapted to be executed in the base computer to add  
7 files for a program to the shared folder, wherein the installation program modifies the  
8 local device used by the base computer to enable the base computer to run the  
9 program by accessing the program files in the shared folder;  
10          an image creation program adapted to create an image of the local device of  
11 the base computer including the installed program; and  
12          a deployment program adapted to communicate the image to the client  
13 computers over the network to apply to local devices of the client computers, wherein  
14 applying the image to the local devices of the client computers enables the client  
15 computers to access the program files in the shared folder to run the program.

1           15.    The system of claim 14, wherein modifying the local device comprises  
2   modifying configuration settings for the base computer stored in the local device and  
3   adding files to the local device.

1           16.    The system of claim 14, wherein the installed program comprises a  
2   first program, wherein the installation program comprises a first installation program,  
3   further comprising:

4                a second installation program adapted to install a second program on the base  
5   computer to the shared folder, wherein installing the second program adds files for the  
6   second program to the shared folder and modifies memory of the base computer, and  
7   wherein installing the second program enables the base computer to run the second  
8   program by accessing the program files in the shared folder;

9                an incremental package program adapted to determine writes to the base  
10   computer memory during installation of the second program on the base computer;  
11   and

12               an incremental deployment program adapted to provide the determined writes  
13   to the client computers to apply to the client computers, wherein the writes applied to  
14   the base computer memory during the installation of the second program are applied  
15   to the client computers, and wherein applying the writes to the client computers  
16   enables the client computers to access the second program files in the shared folder to  
17   run the second program.

1           17.    The system of claim 14, wherein the shared folder is set to read-only  
2   after installing the program to the shared folder.

1           18.    The system of claim 14, wherein the created image includes a driver  
2   that when loaded into the client computers is adapted to cause the client computers to  
3   perform:

4                intercepting a write request to a requested shared file in the shared folder;  
5                generate a mapping of the shared file to a local copy of the shared file in a  
6   local device; and  
7                applying the write to the local copy of the shared file.

1           19. The system of claim 14, wherein the image includes a driver that when  
2 loaded into the client computers causes the client computers to perform:  
3           intercepting a read request to a requested shared file in the shared folder;  
4           determining whether there is a mapping of the requested shared file to a local  
5 copy of the requested shared file;  
6           accessing data for the read request from the local copy of the requested shared  
7 file in response to determining that there is the mapping of the requested shared file to  
8 the local copy; and  
9           accessing data for the read request from the requested shared file in the shared  
10 folder over the network in response to determining that there is no mapping of the  
11 requested shared file to the local copy.

1           20. A system for accessing shared files in a shared folder over a network,  
2 comprising:  
3           a computer adapted to communicate with a local device coupled to the  
4 computer and adapted to communicate with the shared folder over the network,  
5 wherein the shared folder includes shared files;  
6           a network file system driver executed in the computer and adapted to access  
7 the shared folder over the network;  
8           a remote disk sharing driver executed in the computer and adapted to intercept  
9 a write directed to one of the shared files in the shared folder and generate a mapping  
10 of the shared file to a local copy of the shared file in the local device; and  
11           a local file system driver executed in the computer and adapted to apply the  
12 write to the local copy of the shared file.

1           21. The system of claim 19, wherein the write to the local copy in the local  
2 device includes only a portion of the shared file, wherein the shared file and the local  
3 copy of the shared file comprises of a plurality of segments, and wherein the local file  
4 system driver is adapted to apply the write by updating at least one of the segments of  
5 the local copy shared.

1           22.     The system of claim 20,

2           wherein the remote disk sharing driver is further adapted to receive a read  
3     request to a requested shared file in the shared folder, determine whether there is a  
4     mapping of the requested shared file to a local copy of the requested shared file;

5           wherein the local file system driver is further adapted to access data for the  
6     read request from the local copy of the requested shared file in response to the remote  
7     disk sharing driver determining that there is the mapping of the requested shared file  
8     to the local copy; and

9           wherein the network file system driver is further adapted to access data for the  
10    read request from the requested shared file in the shared folder over the network in  
11    response to the remote disk sharing driver determining that there is no mapping of the  
12    requested shared file to the local copy.

1           23.     The system of claim 22,

2           wherein the remote disk sharing driver is further adapted to generate a  
3     mapping of the requested shared file to a local copy of the requested shared file in the  
4     local device in response to determining that there is no mapping of the requested  
5     shared file to the local copy; and

6           wherein the network file system driver is further adapted to copy the accessed  
7     data from the requested shared file to the local copy of the shared file in the local  
8     storage.

1           24.     The system of claim 23, wherein the accessed data comprises one of a  
2     plurality of segments of the requested shared file, and wherein copying the accessed  
3     data to the local copy of the requested shared file comprises copying the accessed  
4     segment to the local copy of the shared file in the local device.

1           25.     The system of claim 24, wherein the read request is for requested data  
2     in one of the segments of the requested shared file,

3           wherein the remote disk sharing driver is further adapted to determine whether  
4     the local copy of the requested shared file includes the segment having the requested  
5     data in response to determining that there is the mapping of the requested shared file  
6     to the local copy;

7           wherein the network file system driver is further adapted to access data from  
8   the segment including the requested data in the requested shared file in the shared  
9   folder over the network, return the requested data from the accessed segment, and  
10   store the accessed segment in the local copy of the requested shared file.

1           26.    The system of claim 25, wherein the read request is for requested data  
2   in one of the segments of the requested shared file,  
3           wherein the remote disk sharing driver is further adapted to determine whether  
4   the local copy of the requested shared file includes the segment having the requested  
5   data in response to determining that there is the mapping of the requested shared file  
6   to the local copy; and  
7           wherein the network file system driver is adapted to access data from the  
8   segment including the requested data in the requested shared file in the shared folder  
9   over the network, return the requested data from the accessed segment, and enable the  
10   storing of the accessed segment in the local copy of the requested shared file.